DETERMINATIONS OF CUBAN PIPERACEAE

By C. F. BAKER

During the past two years a large number of specimens of Piperaceae have been distributed from the herbarium of the Estación Central Agronómica de Cuba. These were collected in the Provinces of Habana and Pinar del Rio by employees of the Station and by Mr. H. A. Van Hermann. In some instances the names originally placed on the specimens were incorrect, and in many cases no specific name was given. Determinations of these specimens have largely been furnished by Dr. I. Urban and by Prof. C. de Candolle, and to these gentlemen acknowledgments are due. I have also compared all of them with material in the Sauvalle-Wright collection and with some material received in exchange. It will be of interest and importance to all who have received the specimens to have access also to these combined notes.

PEPEROMIA ROTUNDIFOLIA Kth.

Rangel, Prov. Pinar del Rio (4215). This is exactly equivalent to Wright's no. 521, labelled numnularifolia by him, but in Symbol. Antill. 3: 228, called rotundifolia Kth.

Peperomia sp. nov.

Mountains above Taco-Taco (3833).

PEPEROMIA ALATA R. & P.

Santa Barbara, near Bejucal (3382). Dr. Urban has referred this to *P. glabella* A. Dietr. These specimens are, however, equivalent to our specimens of Wright's no. 503, which was questionably labelled *P. pterocaulis* Miq. by Wright, and in the Symbol. Antill. 3: 241, referred to *P. alata* R. & P.

PIPER ADUNCUM L.

As determined by de Candolle, it appears that none of the many western Cuba specimens sent out under this name by us and by others belong here. We have specimens of true aduncum only from eastern Cuba (Eggers no. 4654). All of our Western Cuba specimens issued as this belong to P. elongatum var. Ossanum.

PIPER ARTICULATUM A. Rich.

Vento (1322).

PIPER ELONGATUM Vahl

In a recent letter de Candolle says "With regard to *Piper elongatum* Vaḥl, I must tell you that I have quite recently come to the conclusion that this name is to be substituted to that of *Piper angustifolium* R. & P."

PIPER ELONGATUM Vahl, var. OSSANUM C. DC.

Near Artemisa (1750); mountains near Taco-Taco (3788); Managua (4570); Rincón (1016); Vento (585); Santiago de las Vegas (3657, 2208, 447). All were issued as aduncum.

Shafer's no. 459 from Madruga, and his specimen without number from Havana, as well as Curtiss' no. 443 from Isle of Pines, all belong here.

All of Sauvalle's no. 2241, represented by five sheets and labelled Artanthe adunca, are this, as well as Wright's "El Retiro, Apr. 4" specimen (Sauvalle no. 2243), labelled elongata.

In Symbol. Antill. 3: 186, de Candolle refers to Sauvalle's no. 2241 under confusum. Sauvalle had placed Wright's no. 773 with his no. 2241, though Wright's label bears also the name Piper confusum C. DC. Wright's field notes for confusum, which I have not seen quoted, read "Artanthe adunca Miq.? Principal veins 3-4 pairs and smaller. Along rivulets in woods. Monte Verde. May." This would indicate a habitat distinct from that of aduncum, or of elongatum var. Ossanum.

PIPER HISPIDUM Sw.

San Antonio de los Baños (4773); Vento (572). The latter was labelled *hirsutum*.

PIPER HISPIDUM C. DC. var. MAGNIFOLIUM C. DC.

San Antonio de los Baños (4117, 4578) were issued simply as hispidum. Santiago de las Vegas (3647, 5055).

Two N. Y. Botanical Garden specimens from Matanzas (229, 420) also belong here.

PIPER MEDIUM Jacq.

San Antonio de los Baños (4122, 4789). This forms dense thickets along the wooded river banks above the town. PIPER RIGIDUM C. DC.

Santa Catalina (3262). One of many fine things brought from this interesting locality in the western Sierra, by VanHermann.

Wright's no. 1418, rigidum var. verdeanum, is Sauvalle's no. 2247. Wright's 2269 and 2270 are Sauvalle's no. 2238. But on two other specimens of his own, doubtless of the collecting of Blain in western Cuba, Sauvalle has also placed the number 2238, though these specimens are much more like Wright 1418—Sauvalle 2247. But neither of these two specimens are at all like our no. 3262.

HECKERIA UMBELLATA (L.) Kth.

Abundant along fence rows, borders of thickets, and outcropping ledges, all through western Cuba. Specimens issued are from Managua (1562); hills near Candelaria (1614, 1615); near Artemisa (1751); Guanajay Mountain (2187); Rangel (3833); Vento (582); near Calabazar (4905); Santiago de las Vegas (1089, 3523). I have not yet seen peltata growing in western Cuba. Dr. Maza has in the Jardin Botanico de la Universidad de Habana, a foreign Heckeria which, however, is not peltata.

SANTIAGO DE LAS VEGAS, CUBA.

SHORTER NOTES

A REDWOOD DESCRIBED AS A Moss. — In the account of the fossil mosses of Florissant, published by Mrs. Britton and Dr. Hollick in the Bulletin of the Torrey Botanical Club for March, is a new figure of Hypnum Haydenii Lesq., accompanied by the remark that it appears to be a conifer. From a study of a large amount of material from Florissant, I had already concluded that the conifers found there belonged to four species,* namely Sequoia affinis Lesq., a Sabina, and two species of Pinus. The alleged moss has no particular resemblance to the Sabina or Pinus, but it exactly agrees with the growing tips of the Sequoia. I have before me a branch, with ordinary leaves, of Sequoia affinis, and on the same piece excellent "Hypnum Haydenii." There appears to be no doubt whatever about the identity of the two, and the moss name has priority of place. Hence the Florissant redwood

^{*} The particulars will be published in Bull. Amer. Mus. Nat. Hist.